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XRF LEAD SURVEY REPORT

(McDONALD DOUGLAS)
(BONEYARD BUILDINGS 54, 55, 56)

PREPARED FOR:

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JULY 1, 1998



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July 1, 1998
Project No. ES98-038

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LEAD PAINT TESTING REPORT
McDONALD DOUGLAS
BONEYARD BUILDINGS 54,55,56
TORRANCE, CALIFORNIA

INTRODUCTION

This report presents the results of Environmental Solutions lead-based paint testing of the subject property located in Torrance, California. The lead-based paint testing was performed on July 1, 1998 by Environmental Solutions in accordance with EPA guidelines for lead inspections. This document is prepared for the client and any regulatory agency that is involved with this project. The scope of services, inspection methodology, and results are presented below.

OBJECTIVES AND SCOPES

The objective of the testing was to identify, test and qualitatively assess suspect lead-based paint in the three subject buildings, and to recommend appropriate additional and/or response actions upon findings of the testing, if necessary. This testing was performed using a portable X-ray fluorescent (XRF) detector.

PROPERTY DESCRIPTION

The subject buildings are single story rectangular structures built circa 1940. The XRF testing was performed in all three buildings. The buildings are wood framed structures built on concrete. The exterior of the building are also wood panels painted with what appeared at the time of the survey to be lead-base paint. The interior walls are mostly drywall and the ceilings are generally drywall with spray applied acoustics. It has wooden doors, door jambs and door frames with painted surfaces. Interior painted surfaces included dry wall walls and ceilings, vinyl sheet baseboards.

LEAD INSPECTOR'S QUALIFICATION

Mr. Belayet Howlader of Environmental Solutions performed the testing at the site using an RMD XRF spectrum analyzer instrument. Dr. Zainul Abedin performed the project supervision and management. Dr. Abedin and Mr. Howlader have attended the radiation safety courses for operation and handling of the RMD instrument and completed 40 hour OSHA Health & Safety training and California Department of Health Services accredited Lead-Related Construction Inspector and Risk Assessor courses. The XRF testing was conducted using California Radioactive Material License #6111-19.

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At the time of this report, the California Department of Health Services, Childhood Lead Poisoning Branch is implementing a State Interim Certification Model Accreditation Plan adopted from the EPA. Dr. Zainul Abedin and Mr. Belayet Howlader are accredited Lead Inspector and Risk Assessor by the State Interim Certification Program.

METHOD OF TESTING FOR LEAD-BASED PAINT

The instrumentation included a Lead Paint Analyzer (LPA-1) Model with Serial No. 1044, manufactured by Radiation Monitoring Device, Inc. of Worcester, Massachusetts. Applicable surfaces and building components were tested non-destructively by holding the scanner against the surface being tested. At each XRF test location, the LPA-1 scanner shutter key was opened, and the 'quick' mode functions were selected. The testing time under quick mode was auto-adjusted by the XRF. Results were reported from the digital display of the instrument console in milligrams of lead per square centimeter of surface area (mg/cm^2). The instrument was calibrated to the manufacturer's specification before and after testing.

TESTING PROTOCOL

The action level defined in HUD regulation 24 CFR 965.706[®] (53 FR 20803, June 6, 1988), and the HUD Interim Guidelines is a lead concentration above the level of $1.0 \text{ mg}/\text{cm}^2$ when measured by a portable XRF instrument or 0.5% by weight when measured by analytical laboratory methods. CalOSHA Construction Safety Orders, Lead Section 1532.1, Title 8 California Code of Regulations effective March 7, 1997, defines lead coatings or paint as containing 0.06 percent lead by dry weight (600 ppm). The stringent $1.0 \text{ mg}/\text{cm}^2$ were chosen as the action level.

HUD has published guidelines that address test results in the inconclusive range. The inconclusive range in this report ($1.1\text{-}0.9 \text{ mg}/\text{cm}^2$) was developed to acknowledge the limits of detection of XRF technology. One confirmatory paint chip sample was collected during inspection.

TEST RESULTS

Results of our lead based paint testing are included in appendix of this report. A total of 82 measurements were made during XRF lead testing. A total of 1 paint chip samples were collected for confirmatory analysis.

All test results are organized and shown in sequence by sample location, shot number, component, substrate, condition, results and area for each component that tested positive for lead. The results of paint chips samples indicated lead content above 0.5% by weight and are considered lead laden. In general all exterior XRF shot was found positive for lead. One interior wall in the building 54's bathroom indicated positive XRF measurement.

RECOMMENDATIONS

Since the subject buildings are scheduled to be demolished, all lead-positive surface containing lead-base chipped paint must be abated properly by a licensed contractor prior to demolition. Some of the doors or windows may be disposed of as lead-containing as whole.



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LIMITATIONS

This testing was performed based on Environmental Solutions previous experience in performing lead-based paint testing. The XRF testing was conducted in conformance with HUD Guidelines as published in March 1997. We utilized state-of-the-art-practices and techniques in accordance with regulatory standards while performing this inspection. We are not responsible for changing conditions that may alter the relative exposure risk or for future changes in accepted methodology. The testing was conducted in accessible areas of the site. Other conditions may exist in inaccessible or unsurveyed areas. The conclusions and recommendations describe only the conditions present at the time of our survey, in areas that were observed. This survey was performed in general accordance with the standards of care and diligence normally practiced by recognized consulting firms in performing services of a similar nature. Enclosed are the diagrams, actual test results for each of the tested units and common areas, and all relevant certifications and licenses.

Should you have any questions concerning the methodology or the results of this survey, please contact our office at (818) 243-2656.

Environmental Solutions



Michael Rezvani, REA, CAC
Principal Consultant

(attachments)



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XRF CHART



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XRF Lead Based Paint Results

Baneyard buildings, 54, 55, and 56 McDonald Douglas, Torrance

<u>Bldg</u> <u>No.</u>	<u>Room</u>	<u>Shot</u> <u>No</u>	<u>Loca</u> <u>-tion</u>	<u>Compo</u> <u>-nent</u>	<u>Subs</u> <u>-trate</u>	<u>Condi</u> <u>-tion</u>	<u>Results</u> <u>mg/cm²</u>	<u>Area</u> <u>ft²</u>
54	Room #1	1	A	Door	W	D	-0.1	
"	"	2	A	Door Casing	W	D	-0.1	
"	"	3	D	Door Jamb	W	D	-0.1	
"	"	4	A	Wall	PL	D	-0.1	
"	"	5	B	Wall	PL	D	-0.1	
"	"	6	C	Wall	PL	D	-0.1	
"	"	7	D	Wall	PL	D	-0.1	
"	"	8		Floor	VT	D	-0.1	
"	"	9		Ceiling	SP	D	-0.1	
"	Room #2	10	A	Door	W	I	-0.1	
"	"	11	B	Window Sill	W	I	-0.1	
"	"	12	A	Wall	PL	I	-0.1	
"	"	13	B	Wall	PL	I	-0.1	
"	"	14	C	Wall	PL	I	-0.1	
"	"	15	D	Wall	PL	I	0.1	
"	"	16		Ceiling	SP	I	0.1	
"	"	17		Floor	VT	I	-0.3	
"	Hallway	18	B	Wall	PL	I	-0.1	
"	"	19	B	Wall	PL	I	-0.1	
"	Restroom #1	20	A	Wall	PL	I	-0.1	
"	"	21	B	Wall	PL	I	-0.1	
"	"	22	C	Wall	CMT	I	>9.9	20
"	"	23	D	Wall	PL	I	-0.1	
"	Restroom #2	24	B	Door	W	D	-0.1	
"	"	25	A	Wall	W	D	0	
"	"	26	B	Wall	W	D	-0.1	
"	"	27	C	Wall	W	D	-0.1	
"	"	28	D	Wall	W	I	-0.1	
"	"	29		Ceiling	SP	D	-0.1	
"	"	30	D	Window Sill	W	D	0.1	
"	Janitorial Room	31	A	Wall	PL	I	-0.1	
"	"	32	B	Wall	PL	I	0	
"	"	33	C	Wall	PL	I	0	
"	"	34	D	Wall	PL	I	-0.1	
"	"	35	C	Door	W	I	0	
"	Room #3	36	A	Door	W	I	-0.1	
"	"	37	B	Baseboard	VS	I	-0.1	
"	"	38		Floor	VT	I	-0.1	
"	"	39		Ceiling	SP	I	-0.1	
"	"	40	A	Wall	PL	I	-0.1	
"	"	41	B	Wall	PL	I	-0.1	
"	"	42	C	Wall	PL	I	-0.1	
"	"	43	D	Wall	PL	I	-0.1	



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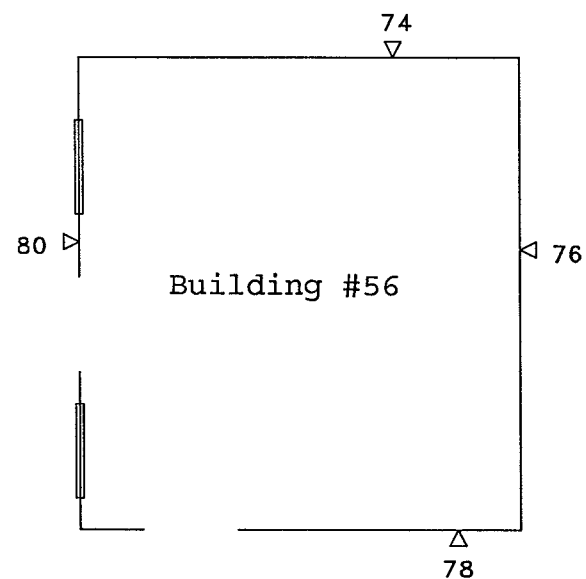
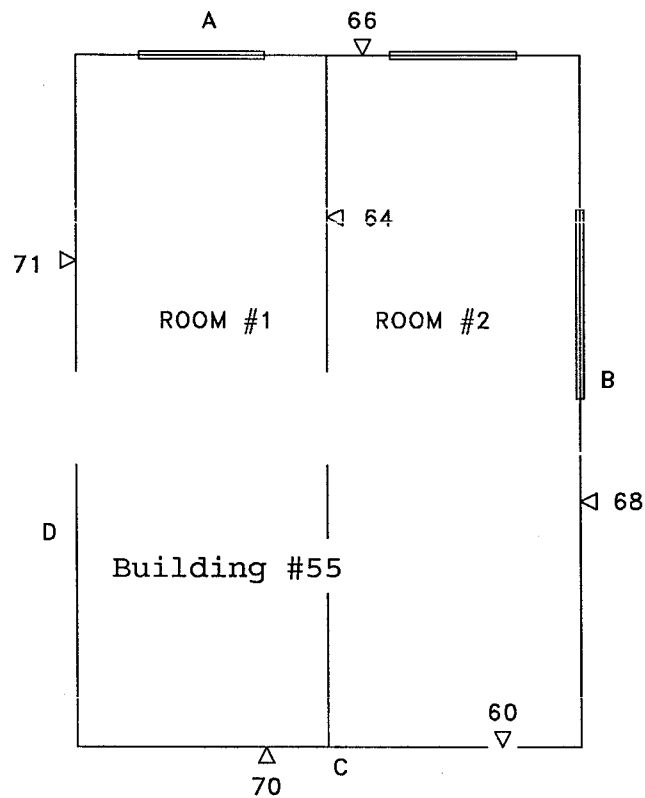
"	Exterior	44	North	Wall	W	D	>9.9	270
"	"	45	North	Door	W	D	-0.1	
"	"	46	North	Door Casing	W	D	6.7	8
"	"	47	North	Window Sill	W	D	8.8	6
"	"	48	East	Wall	W	D	>9.9	414
"	"	49	East	Window Casing	W	D	>9.9	8
"	"	50	East	Door	W	D	>9.9	23
"	"	51	South	Wall	W	D	>9.9	270
"	"	52	West	Wall	W	D	>9.9	414
"	"	53	West	Window Sill	W	D	>9.9	5
"	"	54	West	Overhang Ceiling	W	D	>9.9	456
55	Interior Room #1	55	D	Door	W	D	0.1	
"	"	56	A	Wall	W	D	-0.1	
"	"	57	B	Wall	W	D	-0.1	
"	"	58	C	Wall	W	D	0.1	
"	"	59	A	Window Sill	W	D	-0.1	
"	Room #2	60	C	Door	W	D	>9.9	23
"	"	61	A	Wall	W	D	>9.9	120
"	"	62	B	Wall	W	D	>9.9	320
"	"	63	C	Wall	W	D	>9.9	97
"	"	64	D	Wall	W	D	>9.9	240
"	"	65		Ceiling	W	D	>9.9	600
"	Exterior	66	North	Wall	W	D	>9.9	240
"	"	67	North	Window Sill	W	D	2.5	10
"	"	68	East	Wall	W	D	8.5	320
"	"	69	East	Wall	W	D	>9.9	
"	"	70	South	Wall	W	D	>9.9	240
"	"	71	West	Wall	W	D	>9.9	240
"	"	72	West	Window Sill	W	D	>9.9	6
"	"	73	West	Overhang	W	D	>9.9	420
56	Exterior	74	North	Wall	W	D	2.5	200
"	"	75	North	Window Sill	W	D	5.6	8
"	"	76	East	Wall	W	D	2.5	240
"	"	77	East	Window Sill	W	D	>9.9	8
"	"	78	South	Wall	W	D	8.5	120
"	"	79	South	Door	W	D	>9.9	80
"	"	80	West	Wall	W	D	5.6	160
"	"	81	West	Overhang Ceiling	W	D	>9.9	330
"	"	82	West	Facia	W	D	>9.9	55



CAD SUBJECT DRAWINGS

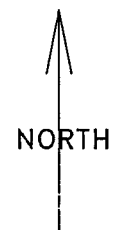


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FLOOR PLAN

POSITIVE LEAD BASED PAINT (LBP) SAMPLE LOCATION



BONEYARD BUILDINGS
McDonald Douglas
TORRANCE, CALIFORNIA

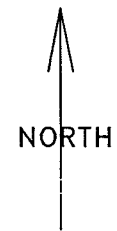
LEGEND:

- A REPRESENT NORTH WALL
- B REPRESENT EAST WALL
- C REPRESENT SOUTH WALL
- D REPRESENT WEST WALL
- || WINDOW
- CL CLOSET
- CB CABINET
- ◁ POSITIVE LBP SHOT LOCATION
- 60 POSITIVE LBP SHOT No.

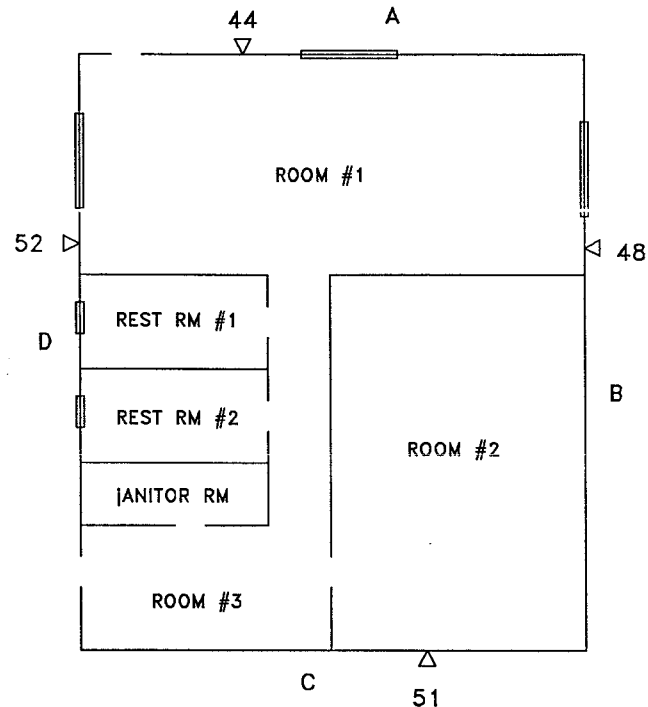


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BONEYARD BUILDINGS
McDonald Douglas
TORRANCE, CALIFORNIA



FLOOR PLAN
Building #54

POSITIVE LEAD BASED PAINT (LBP) SAMPLE LOCATION

LEGEND:

- A REPRESENT NORTH WALL
- B REPRESENT EAST WALL
- C REPRESENT SOUTH WALL
- D REPRESENT WEST WALL
- WINDOW
- CL CLOSET
- CB CABINET
- ◁ POSITIVE LBP SHOT LOCATION
- 44 POSITIVE LBP SHOT No.



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